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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-------------------------|----------------------------------|------------------|
| 09/818,179 | 03/27/2001 | Richard Francis Russell | 2000-0020.00 | 1247 |
| 21972 | 7590 | 08/16/2004 | | |
| LEXMARK INTERNATIONAL, INC. INTELLECTUAL PROPERTY LAW DEPARTMENT 740 WEST NEW CIRCLE ROAD BLDG. 082-1 LEXINGTON, KY 40550-0999 | | | | |
| | | | EXAMINER LESNIEWSKI, VICTOR D | |
| | | | ART UNIT 2155 | PAPER NUMBER |

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,179

Applicant(s)

RUSSELL ET AL.

Examiner

Victor Lesniewski

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/27/2001</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application has been examined.
2. Claims 1-23 are now pending.

Information Disclosure Statement

3. The IDS filed on 3/27/2001 has been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 9, 10, 12, 14, and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by the applicant's admitted prior art, namely Russell et al. (U.S. Patent Number 5,537,550), hereinafter referred to as Russell.

6. Russell has disclosed:

- <Claim 1>

A method of sharing a printer between a plurality of users on a computer network, said method comprising the steps of: attaching host-based networking hardware to the printer (column 3, lines 62-65); providing a network communication protocol defining a command channel and a data channel (column 57, lines 31-36); allowing only one of the users to own the data channel at any single point in time (column 30, line 66 through column 31, line 5); and instructing the host-based

networking hardware to accept information on the data channel only from the user that owns the data channel (column 31, lines 6-7).

- <Claim 2>

The method of claim 1, wherein the host-based networking hardware disregards all said information received on the data channel from any of the users that do not own the data channel (column 31, lines 6-7).

- <Claim 3>

The method of claim 1, wherein the host-based networking hardware responds to a command on the command channel from any of the users (column 39, line 60 through column 40, line 4).

- <Claim 4>

The method of claim 3, wherein the host-based networking hardware responds with a status response (column 40, lines 36-42).

- <Claim 5>

The method of claim 4, wherein the status response indicates the user that owns the data channel (column 40, lines 50-56).

- <Claim 9>

The method of claim 1, wherein the network communication protocol defines a communication frame having at least one of a destination address field, a source address field, a frame identifier field, a command/data definition field, and a payload field (column 27, lines 33-45).

- <Claim 10>

The method of claim 9, comprising the further step of sending the communication frame from the user that owns the data channel to the host-based networking hardware (column 16, lines 27-32).

- <Claim 12>

The method of claim 10, wherein the communication frame has a frame number and a sequence number, the host-based networking hardware discarding any said communication frame that does not have an expected said sequence number (column 27, lines 46-57).

- <Claim 14>

The method of claim 10, wherein a timeout occurs when the host-based networking hardware does not receive said communication frame within a predetermined time period (column 35, lines 5-8).

- <Claim 17>

A method of sharing a network appliance between a plurality of users on a computer network, said method comprising the steps of: providing a network communication protocol defining a command channel and a data channel (column 57, lines 31-36); allowing only one of the users to own the data channel at any single point in time (column 30, line 66 through column 31, line 5); and instructing the network appliance to accept information on the data channel only from the user that owns the data channel (column 31, lines 6-7).

Since all the limitations of the invention as set forth in claims 1-5, 9, 10, 12, 14, and 17 were disclosed by Russell, claims 1-5, 9, 10, 12, 14, and 17 are rejected.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-8, 11, 13, 15, 16, and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell, as applied above, in view of Kumpf (U.S. Patent Number 6,370,592).

9. Russell disclosed an interactive network board for use with a peripheral. This network board includes a SCSI which has a data channel and a status channel for transmitting print data to a printer over the data channel, transmitting printer status requests to a printer over the status channel, and receiving printer status data from a printer over the status channel. In an analogous art, Kumpf disclosed a network interface device for use with a peripheral. Just as Russell's invention, Kumpf uses separate channels for control messages and data streaming.

10. Concerning claims 6-8, 11, 13, 15, and 16, Russell did not explicitly disclose the use of specific signals in his system such as abort, connection request, and acknowledgement signals. However, Russell discusses general status signals at length and in several instances he points to information that would support the use of more specific signals. He mentions an abort type operation when speaking of PCONSOLE's utility for the user. See column 11, lines 25-30. He points toward the existence of connection requests when discussing CPSOCKET. See column 17, lines 51-54. And he

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shows the use of acknowledgements or confirmations during information transfer in his system. See column 42, table 12. Elsewhere, Kumpf has explicitly disclosed the use of such specific signals as delineated claim by claim below. Since the inventions encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system provided by Russell by adding the ability to utilize more specific status or control signals as provided by Kumpf. This would make sense because it would allow for greater organization in the operation of Russell's system. In addition, Russell has already hinted at the use of such signals.

11. Concerning claims 18-23, Russell did not explicitly disclose that his system would discard those data frames found to be unusable. Russell does not speak at all on what would happen to a data frame that does not match up with the expected sequence or format. It could be assumed that those frames would be dropped since this is a well known result in the art for unusable frames. Furthermore, Kumpf points toward a similar situation where data frames with an unmatched sequence number are dropped. Since the inventions encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system as provided by Russell by adding the ability to discard unmatched or unusable data frames as provided by Kumpf.

12. Thereby, the combination of Russell and Kumpf discloses:

- <Claim 6>

The method of claim 1, wherein the user that owns the data channel can release the data channel by sending one of a close signal and a terminate signal on the

command channel to the host-based networking hardware (Kumpf, column 19, lines 18-25).

- <Claim 7>

The method of claim 6, wherein a print job is aborted in response to the terminate signal (Kumpf, column 29, lines 18-35).

- <Claim 8>

The method of claim 6, wherein a user that does not own the data channel can acquire the data channel by sending a connect signal on the command channel to the host-based networking hardware (Kumpf, column 26, lines 22-35).

- <Claim 11>

The method of claim 10, wherein the host-based networking hardware sends an acknowledgement of receiving the communication frame to the user that owns the data channel (Kumpf, column 26, lines 45-46).

- <Claim 13>

The method of claim 12, wherein, in response to receiving said communication frame that does not have said expected sequence number, the host-based networking hardware sends an acknowledgement including the frame number of a last successfully received communication frame to the user that owns the data channel (Kumpf, column 13, lines 29-50).

- <Claim 15>

The method of claim 14, wherein the host-based networking hardware aborts a print job after a third said timeout (Kumpf, column 35, lines 40-62).

- <Claim 16>

The method of claim 15, wherein the host-based networking hardware releases the data channel after the print job is aborted (Kumpf, column 27, lines 40-58).

- <Claim 18>

A method of sharing a network appliance between a plurality of users on a computer network, said method comprising the steps of: using one of the users to transmit a data frame into the computer network (Russell, column 16, lines 16-18); receiving the data frame with said network appliance (Russell, column 16, lines 27-32); determining whether a first portion of the data frame includes a unique, predetermined sequence of data (Russell, column 27, lines 46-57); reading and processing a second portion of the data frame if the first portion of the data frame includes the predetermined sequence of data (Russell, column 27, line 66 through column 28, line 4); and discarding the data frame without reading and processing the second portion of the data frame if the first portion of the data frame does not include the predetermined sequence of data (Kumpf, column 31, lines 30-37).

- <Claim 19>

The method of claim 18, wherein the data frame has an Ethernet format (Russell, column 27, lines 6-16).

- <Claim 20>

The method of claim 18, wherein the first portion of the data frame comprises an initial portion of the data frame (Russell, column 27, lines 46-48).

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- <Claim 21>

The method of claim 18, wherein said determining step is performed in real time without storing the data frame in a memory (Russell, column 27, lines 26-30).

- <Claim 22>

The method of claim 18, wherein the network appliance comprises a printer (Russell, column 4, lines 2-7).

- <Claim 23>

The method of claim 18, wherein said determining step is performed exclusively with hardware (Kumpf, column 26, lines 29-35).

Since the combination of Russell and Kumpf discloses all of the above limitations, claims 6-8, 11, 13, 15, 16, and 18-23 are rejected.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- Gyllenskog (U.S. Patent Number 5,633,992) disclosed a method of coordinating a mode of communication between a host module and a receiving module, specifically a printer.
- Onaga (U.S. Patent Number 5,862,404) disclosed a system containing intelligent peripheral devices capable of communicating device status information via a communications line to a file server.

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- Kodimer et al. (U.S. Patent Number 6,003,078) disclosed a method by which status information of a network peripheral is automatically communicated to a remote service organization.
- Olson (U.S. Patent Number 6,047,319) disclosed a system for sharing network resources that utilizes a unique device driver interface and a multiplexing communication protocol.
- Stollfus et al. (U.S. Patent Number 6,321,258) disclosed a network with a shared peripheral where a web server permits administration of the peripheral from a client workstation.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number is 703-308-6165. The examiner can normally be reached on Monday through Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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